Références (cours du 9 juin 2021 : « Complexité et incertitude radicale : verres de spin, écosystèmes et réseaux d'entreprises », Jean-Philippe Bouchaud)

Risque et incertitude, Rationalité limitée : Général

- King, M., & Kay, J. (2020). *Radical uncertainty: Decision-making for an unknowable future*. Hachette UK.
- Taleb, N. (2005). The black swan: Why don't we learn that we don't learn. *NY: Random House*.
- Sims, C. A. (1980). Macroeconomics and reality. *Econometrica: journal of the Econometric Society*, 1-48.
- Sargent, T.J., 1993. Bounded Rationality in Macroeconomics. Oxford UniversityPress Inc., New York.

Systèmes complexes, verres de spin

- Parisi, G. (2007). Physics Complexity and Biology. *Advances in Complex Systems*, *10*(supp02), 223-232.
- Mézard, M., Parisi, G., & Virasoro, M. A. (1987). *Spin glass theory and beyond: An Introduction to the Replica Method and Its Applications* (Vol. 9). World Scientific Publishing Company.
- Mezard, M., & Montanari, A. (2009). *Information, physics, and computation*. Oxford University Press.

Marginalité

- Müller, M., & Wyart, M. (2015). Marginal stability in structural, spin, and electron glasses. *Annu. Rev. Condens. Matter Phys.*, *6*(1), 177-200.
- Franz, S., Parisi, G., Sevelev, M., Urbani, P., & Zamponi, F. (2017). Universality of the SAT-UNSAT (jamming) threshold in non-convex continuous constraint satisfaction problems.
- Brock, W. A., Hommes, C. H., & Wagener, F. O. O. (2009). More hedging instruments may destabilize markets. *Journal of Economic Dynamics and Control*, *33*(11), 1912-1928.
- Marsili, M. (2014). Complexity and financial stability in a large random economy. *Quantitative Finance*, *14*(9), 1663-1675.

- De Martino, A., Marsili, M., & Castillo, I. P. (2004). Statistical mechanics analysis of the equilibria of linear economies. *Journal of Statistical Mechanics: Theory and Experiment*, *2004*(04), P04002.
- Biroli, G., Bunin, G., & Cammarota, C. (2018). Marginally stable equilibria in critical ecosystems. *New Journal of Physics*, *20*(8), 083051.
- Garnier-Brun, J., Benzaquen, M., Ciliberti, S., & Bouchaud, J. P. (2021). A new spin on optimal portfolios and ecological equilibria. *Available at SSRN 3817718*.
- Aspelmeier, T., & Moore, M. A. (2019). Realizable solutions of the Thouless-Anderson-Palmer equations. *Physical Review E*, *100*(3), 032127.

Apprentissage, jeux

- Marcet, A., & Sargent, T. J. (1989). Convergence of least squares learning mechanisms in self-referential linear stochastic models. *Journal of Economic theory*, *48*(2), 337-368.
- Evans, G.W., Honkapohja, S., 2013. Learning as a rational foundation for macroeconomics and finance, Rethinking Expectations: The WayForward for Macroeconomics, Roman Frydman and Edmund S. Phelps (eds.), Princeton University Press, 2013.
- Farmer, R., & Bouchaud, J. P. (2020). *Self-Fulfilling Prophecies, Quasi Non-Ergodicity & Wealth Inequality* (No. w28261). National Bureau of Economic Research.
- Kirman, A. (1993). Ants, rationality, and recruitment. *The Quarterly Journal of Economics*, *108*(1), 137-156.
- Galla, T., & Farmer, J. D. (2013). Complex dynamics in learning complicated games. *Proceedings of the National Academy of Sciences*, *110*(4), 1232-1236.
- Sato, Y., & Crutchfield, J. P. (2003). Coupled replicator equations for the dynamics of learning in multiagent systems. *Physical Review E*, *67*(1), 015206.
- Challet, D., Marsili, M., & Zhang, Y. C. (2005). *Minority Games: Interacting Agents in Financial Markets (Oxford Finance Series)*. Oxford University Press, Inc.